CSE 163
Intro to Machine Learning

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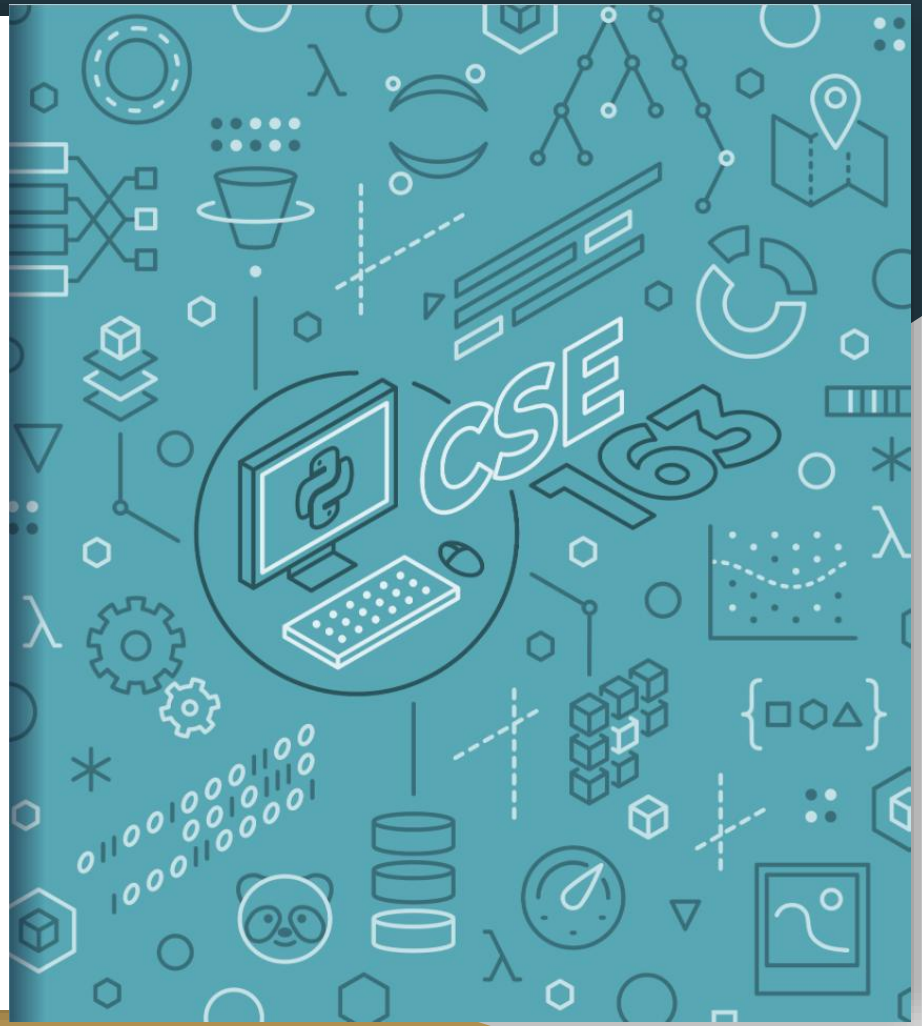
Spring 2026

💭 Icebreaker (discuss with neighbors): ‘
What is your favorite tree?
Add to our Slido!

slido.com
#cse163



Announcements

- **Take Home Assessment 4: Education** due Thursday May 7th at 11:59pm!
- **Peer Reviews for THA 3** due Wednesday May 6th 29th at 11:59pm!
- **Lesson 15 Canvas Quiz** due tonight at 11:59pm!
- **Checkpoint 3** due tonight at 11:59pm!

Machine Learning Terms

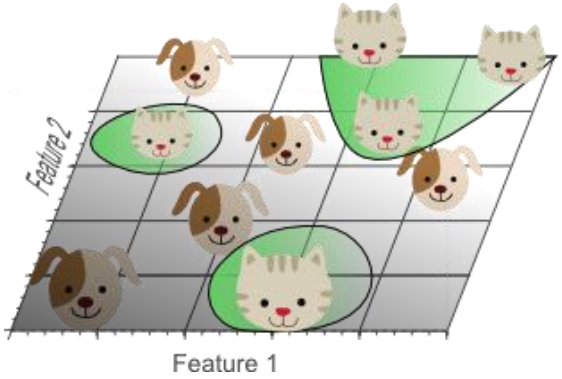
- Machine Learning
  - *Model*
  - *Machine Learning Algorithm*

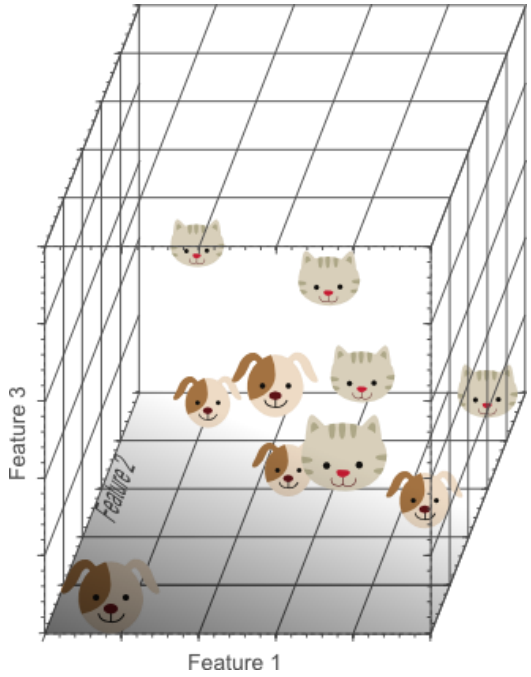
- Data
  - *Training set*
  - *Exmaple*
  - *Feature*
  - *Label*

- Types of Machine Learning
  - *Regression*
  - *Classification*

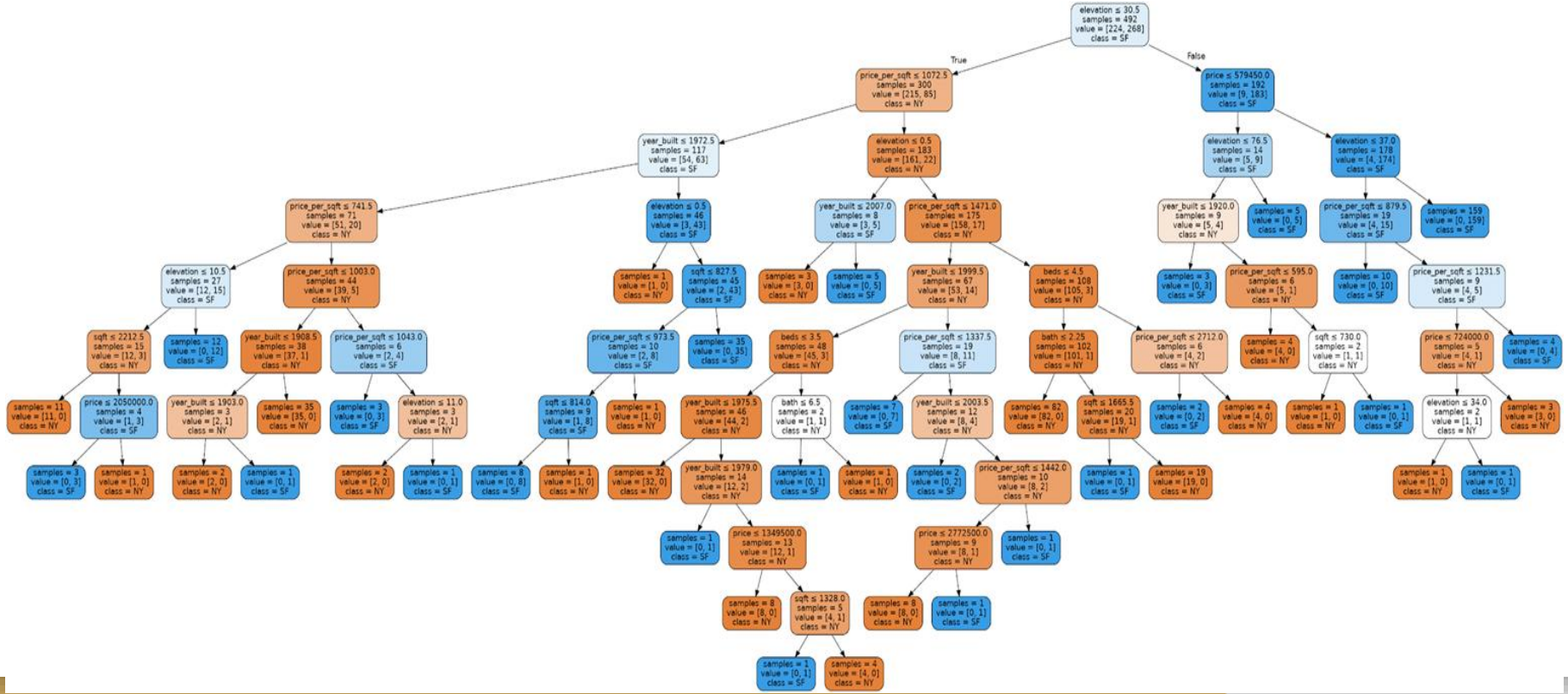
Garbage In, Garbage Out

- There exists hundreds of different model types, but the most important thing is having good features to describe your data!





Decision Tree!



(Typical) Classification ML Pipeline

```
# Separate data
features = data.loc[:, data.columns != 'target']
labels = data['target']
# Create and train model
model = DecisionTreeClassifier()
model.fit(features, labels)
# Predict on some data
predictions = model.predict(features)
# Assess accuracy
accuracy_score(labels, predictions)
```

(Typical) Regression ML Pipeline

```
# Separate data
features = data.loc[:, data.columns != 'target']
labels = data['target']
# Create and train model
model = DecisionTreeRegressor()
model.fit(features, labels)
# Predict on some data
predictions = model.predict(features)
# Assess MSE
mean_squared_error(labels, predictions)
```